

A2 electric circuit comprising first and second electric components electrically connected with one another through a conductive adhesive mass.--

In the Claims

Please replace the claims with the following clean version of the entire set of pending claims, in accordance with 37 C.F.R. §1.121(c)(1)(i). Cancel all previous versions of any pending claim.

A marked up version showing amendments to any claims being changed is provided in one or more accompanying pages separate from this amendment in accordance with 37 C.F.R. §1.121(c)(1)(ii). Any claim not accompanied by a marked up version has not been changed relative to the immediate prior version, except that marked up versions are not being supplied for any added claim or canceled claim.

Cancel claims 9-14 and 23-28 without prejudice.

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29. A battery powerable apparatus comprising:
a substrate having a surface comprising at least one node location;
a thin profile battery mounted over the substrate and node location;
and
a conductive adhesive mass electrically interconnecting the thin profile battery with the node location, the conductive adhesive mass comprising an epoxy terminated silane.

30. The apparatus of claim 29 wherein the epoxy terminated silane comprises a glycidoxymethoxy silane.

31. The apparatus of claim 29 wherein the epoxy terminated silane comprises a glycidoxypropyltrimethoxysilane.

32. The apparatus of claim 29 wherein the epoxy terminated silane is present in the adhesive mass at less than or equal to about 2% by weight.

33. The apparatus of claim 29 wherein the epoxy terminated silane is present in the adhesive mass at less than or equal to about 1% by weight.

34. The apparatus of claim 29 wherein the thin profile battery comprises an outer nickel clad stainless steel surface over which the conductive adhesive mass is received.

35. The apparatus of claim 29 wherein the thin profile battery is a button type battery having a terminal housing member comprising an outer nickel clad stainless steel surface over which the conductive adhesive mass is received.

36. The apparatus of claim 29 wherein the thin profile battery is a button type battery having a terminal housing member comprising an outer nickel clad stainless steel surface over which the conductive adhesive mass is received, and the substrate comprises conductive printed thick film ink over which the conductive adhesive mass is received.

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37. A radio frequency communication device comprising:
a substrate having conductive paths including an antenna;
at least one integrated circuit chip mounted to the substrate and in
electrical connection with a first portion of the substrate conductive paths;
and

a thin profile battery conductively bonded with a second portion of the
substrate conductive paths by a conductive adhesive mass, the conductive
adhesive mass comprising an epoxy terminated silane.

38. The device of claim 37 wherein the epoxy terminated silane
comprises a glycidoxy methoxy silane.

39. The device of claim 37 wherein the epoxy terminated silane
comprises a glycidoxypropyltrimethoxysilane.

40. The device of claim 37 wherein the epoxy terminated silane is
present in the adhesive mass at less than or equal to about 2% by weight.

41. The device of claim 37 wherein the epoxy terminated silane is
present in the adhesive mass at less than or equal to about 1% by weight.

42. The device of claim 37 wherein the thin profile battery comprises
an outer nickel clad stainless steel surface over which the conductive
adhesive mass is received.

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43. The device of claim 37 wherein the thin profile battery is a button type battery having a terminal housing member comprising an outer nickel clad stainless steel surface over which the conductive adhesive mass is received.

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44. The device of claim 37 wherein the thin profile battery is a button type battery having a terminal housing member comprising an outer nickel clad stainless steel surface over which the conductive adhesive mass is received, and the conductive paths comprise conductive printed thick film ink over the second portion of which the conductive adhesive mass is received.

45. An electric circuit comprising first and second electric components electrically connected with one another through a conductive adhesive mass comprising an epoxy terminated silane.

46. (Amended) The apparatus of claim 45 wherein the epoxy terminated silane comprises a glycidoxy methoxy silane.

47. The apparatus of claim 45 wherein the epoxy terminated silane comprises a glycidoxypolytrimethoxysilane.

48. The apparatus of claim 45 wherein the epoxy terminated silane is present in the adhesive mass at less than or equal to about 2% by weight.

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49. The apparatus of claim 45 wherein the epoxy terminated silane is present in the adhesive mass at less than or equal to about 1% by weight.

50. The apparatus of claim 45 wherein at least one of the first and second electric components comprises a nickel containing metal surface over which the conductive adhesive mass is received.

Please add new Claims 51-56 as follows:

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51. (New) The apparatus of Claim 29, where the conductive adhesive mass electrically interconnecting the thin profile battery with the node location has an interconnecting resistance of less than or equal to about 0.32 ohm-cm².

52. (New) The apparatus of Claim 29, where the conductive adhesive mass electrically interconnecting the thin profile battery with the node location has an interconnecting resistance of less than or equal to about 0.16 ohm-cm².

53. (New) The apparatus of Claim 37, where the conductive adhesive mass conductively bonding the thin profile battery with the second portion of the substrate conductive paths has an resistance of less than or equal to about 0.32 ohm-cm².

54. (New) The apparatus of Claim 37, where the conductive adhesive mass conductively bonding the thin profile battery with the second portion of the substrate conductive paths has an resistance of less than or equal to about 0.16 ohm-cm².

55. (New) The apparatus of Claim 44, where the conductive adhesive mass electrically connecting the first and second electric components with one another has an electrical resistance of less than or equal to about 0.32 ohm-cm².

56. (New) The apparatus of Claim 44, where the conductive adhesive mass electrically connecting the first and second electric components with one another has an electrical resistance of less than or equal to about 0.16 ohm-cm².